

GENERAL SPECIFICATIONS FOR MACHINERY

Bureau of Ships, Navy Department

SUBSECTION S1-1. - PLANS.

The following changes should be made in the 1 March 1941 edition:

Par. S1-1-a. General requirements.

*Subpar. 14: Add the following:

"The alteration table may be located as shown on the above-mentioned plan, or located at bottom of the plan adjacent to the left side of title block."

Subpar. 17, last sentence: Change the semi-colon to a period and delete the remainder of the sentence.

*Par. S1-1-e. Type B drawings.

Add the following as subpar. 9:

"9. Type B plans will not be required for machine tools except for certain specially designed tools, in which case the exact plan requirements will be specified in the contract or order."

*Par. S1-1-g. Type D drawings.

Add the following as subpar. 14:

"14. Type D plans will not be required for machine tools except for certain specially designed tools, in which case the exact plan requirements will be specified in the contract or order."

*Par. S1-1-h. Instruction books and pamphlets.

Subpar. 5, item (c): Change to read as follows:

"(c) One to the Superintendent of the United States Naval Academy for transmittal to the Director, Engineer Experiment Station. The Superintendent of the United States Naval Academy will also be furnished one copy each of such instruction books applying to main propulsion machinery, main engines and boilers for delivery to the Post Graduate School."

Subpar. 6. Insert the following as new items "(l)" and "(m)", and reletter the present items "(l)" and "(m)" to "(n)" and "(o)" respectively:

"(l) Machine tools.

"(1) Master instruction books shall be submitted for Bureau approval and assignment of Bureau identification before submission of the required copies thereof. This procedure will be required on the submission of the master instruction book on the first contract or order only. Subsequent contracts or orders for identical machine tools will reference the Bureau identification mentioned above and specify the number of copies required. No approval action will be required on instruction books furnished on subsequent contracts or orders, provided that there is no change in the machine tool or electrical equipment. Any change in the machine tool or electrical equipment from that shown by the original master instruction book on file at the Bureau will necessitate the submission of a new master instruction book for approval and assignment of a new Bureau identification.

NOTE. - Changes marked with an asterisk (*) were previously authorized, and are repeated hereon for convenience.

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*Par. S1-1-h. (continued)

"(2) Master instruction books shall be in strict accordance with the following:

"(a) The pages shall be printed on strong, transparent paper suitable for reproduction by blueprinting or a similar process. In general the pages shall be 8-1/2 by 10-1/2 inches and arranged for side binding along one 10-1/2-inch side. Where larger pages are necessary for drawings or diagrams, the sheets shall be not larger than 10-1/2 by 20 inches, and the sheets folded in parallel to the binding.

"(b) The book covers shall be leatherette, fabrikoid or similar strong, durable, oil and waterproof material as approved and shall provide means for the removal of pages for reproduction. The size of the covers shall be 9 by 11 inches, and they shall be printed with sufficient descriptive data to insure unmistakable identification of the equipment, manufacturer's name, address, and Bureau identification. The latter will be assigned at time of approval.

"(c) The front page of the book shall be in accordance with subpar.

S1-1-h-6(1)(2)(a) above, and printed exactly like the cover.

"(d) All other pages shall be in accordance with subpar. S1-1-h-6(1)(2)(a) above, and shall include the following information:

"(1) General description of the machine tool with necessary cuts, half-tones or diagrams to clearly depict the text; reduced-size plan of motor showing outline, mountings, rating, classification, identification, winding and coil treatment data; reduced-size plan of controller showing outline, mountings, rating, classification, identification, winding data and description of operation when control arrangement requires such an explanation; reduced-size outline plan of machine tool showing overall dimensions, total weight and size, spacing and number of foundation bolts; operating instructions for the machine tool including any necessary safety precautions, these instructions are to be supplemented by cuts, half-tones, diagrams, etc., as considered necessary for a clear understanding of the instructions; instructions for care and maintenance of the machine tool supplemented by cuts, half-tones, oiling and greasing diagrams and any other diagrams necessary for a clear understanding of the instructions; complete listing of tools and special attachments furnished with and a part of the machine together with complete identification necessary for replacement; complete listing of spare parts for machine, motor and control equipment.

"(3) Specified instruction books shall be as follows:

"(a) Covers shall be similar to the covers of the master instruction books except that the pages shall be securely bound so as to prevent detachment of either the covering or the pages.

"(b) The pages may be either blue-line prints from vandykes of the original master instruction book pages, or they may be printed on one side only of a strong grade of paper. In either case, these books shall be identical as to form and information with the master instruction book which will be retained by the Bureau of Ships.

NOTE.- Changes marked with an asterisk (*) were previously authorized, and are repeated hereon for convenience.

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*Par. S1-1-h. (continued)

"(m) 36-inch searchlights.

"(1) Master instruction books shall be submitted for approval by the Bureau and assignment of Bureau identification before submission of required copies thereof. This procedure will be required on the submission of master instruction book on the first contract or order only. Subsequent contracts or orders for identical searchlights will reference the Bureau identification mentioned above and specify the number of copies required. No approval action will be required on instruction books furnished on subsequent contracts or orders, provided that there is no major change in the searchlight. Minor changes shall be indicated on additional sheets which shall be suitable for insertion in the master instruction book. Major changes in searchlights from that shown by the original master instruction book on file at the Bureau will necessitate the submission of a new master instruction book for approval and assignment of a new Bureau identification.

"(2) Master instruction books shall be in strict accordance with the following:

"(a) The pages shall be as specified in subpar. S1-1-h-6(1)(2)(a) above.

"(b) The front page of the books shall be in accordance with subpar. S1-1-h-6(1)(2)(a) above, and printed exactly like the cover.

"(c) The second page of the books shall also be in accordance with subpar. S1-1-h-6(1)(2)(a) above, and shall be printed in the following form:

One inch space at top of page

Contract or order:		Vessel		Remarks	
Number	Date	Number	Date		

One half inch space at bottom of page

"NOTE: Original contract or order with date and name of vessel to be filled in on first contract or order by contractor. Successive contracts or orders to be filled in by manufacturer for subsequent orders of same equipment.

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*Par. S1-1-h. (continued)

"(d) All other pages shall be in accordance with subpar. S1-1-h-6(l)(2)(a) above, and shall include descriptive cuts, half-tones and diagrams together with text giving a description of the system and apparatus and directions for the installation, operation, care, adjustment, and repair to the system and all parts of the apparatus. The books shall contain a complete list of part names and numbers illustrated as necessary for identification and ordering purposes; the list shall include all replaceable units or parts, with contractor's plan, order or catalog number, and the Bureau of Ships plan number of the plan on which the unit or part is called for. When instruction books apply to several different ships for which different Bureau of Ships plan numbers are assigned, a cross reference list showing manufacturer's numbers and corresponding Bureau numbers may be used.

"(e) Specified instruction books shall be as specified in subpar. S1-1-h-6(l)(3) above."

*Par. S1-1-i. Change to read "Record of electrical auxiliaries with performance data." Subpars. 1 and 2: Delete and substitute therefor the following:

"1. Complete information and illustrative matter for all electrical equipment and electrically operated auxiliaries (both hull and machinery) of a vessel shall be compiled by the contractor and bound by him into a convenient "Record of Electrical Auxiliaries with Performance Data". Information shall be included for generators, motors, controllers, searchlights, rheostats, circuit breakers, storage batteries, electrical heating appliances, switchboards, panels, electrical instruments, including those employed by the fire control and signal system, appliances, etc. Information concerning radio equipment and underwater sound equipment shall not be included, except items connected with the power supply of such equipment, such as motor-generators, controllers, etc. Wherever practicable, arrangements should be made to include information concerning items of electrical installation not under the cognizance of the Bureau of Ships. Such arrangements should be made by the contractor with the assistance and to the satisfaction of the Supervisor of Shipbuilding.

"(a) The "Record of Electrical Auxiliaries with Performance Data" shall be in accordance with the following:

"(1) The original shall be printed on vellum or similar material which will permit reproduction by blueprinting or a similar process. The pages shall be 8-1/2 by 10-1/2 inches and arranged for side binding along one 10-1/2-inch side. Where larger pages are necessary for drawings or diagrams, the sheets shall be folded parallel to the binding.

"(2) The binders shall be leatherette, fabrikoid, or similar strong, durable, oil and waterproof material as approved and shall provide for the removal of pages for reproduction; the binders shall be stiff-backed, not limp, with a side binding, and printed with the title and volume on the face and side binding. The word "RESTRICTED" shall be printed in the upper left-hand corner on the face of the binder. The volume and serial number shall also be indicated on the face of the binder.

"(3) The first page shall be in accordance with subpar. S1-1-i-1(a)(1) above, and shall consist of receipt forms with corresponding serial numbers, and a detachable 5-by 8-inch receipt.

"(4) The second page shall be in accordance with subpar. S1-1-i-1(a)(1) above, and shall be printed exactly like the cover.

NOTE. - Changes marked with an asterisk (*) were previously authorized, and are repeated hereon for convenience.

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*F.r. S1-1-i. (continued)

"(5) All duplicate copies shall be reproduced by blueprinting or a similar process and bound in the same manner as the original.

"2. In general, the material included in this record shall be as follows:

"(a) Name of equipment, auxiliary or device manufacturer.

"(b) Location (deck, frame and side).

"(c) Contract number and year.

"(d) Nameplate data.

"(e) Manufacturer's nomenclature, catalog designations and ordering instructions therefor.

"(f) Full information regarding general appearance, details of construction, method of operation, connection diagrams, maintenance instructions, etc.

"(g) Factory test data and supplementary factory test data in regard to electrical characteristics.

"(h) Shipboard test data. This data shall include the following (see Appendix I, Part II for standard test forms for shipboard electrical tests):

"(1) Reference to applicable pages of general and detail specifications.

"(2) Reference to general arrangement and detail plans by Bureau of Ships' numbers.

"(3) Summary of method of making test.

"(4) Actual test data for the equipment or auxiliary, including electrical readings, to show compliance with contract performance specifications.

"(5) Remarks on results of test.

"NOTE: When the information required by subpar. S1-1-i-2. items (e), (f), and (g) above is given on standard plans or in manufacturer's instruction books, it need not be supplied in the record but references to the applicable plan numbers and instruction books shall be listed. Unless otherwise specified, this shipboard test data is not required for non-vital motor driven equipment, such as galley equipment, shop equipment, etc. However, this data shall be included for electrically driven auxiliaries such as pumps, blowers, motor generator sets, steering gear, anchor windlass, winches, ammunition hoists, cranes, capstans, towing machines, elevators, hatches (power operated), ventilation covers (power operated), motor operated valves, air compressors (H.P. and L.P.), periscope hoists, plane rigging and tilting gear, etc."

Subpar. 3: Delete the identifying number and insert the following previous to the subpar:

"3. For illustrative purposes, photographs, cuts, half-tones, or other suitable reproductions may be used, provided that they are printed on a paper which will make them easily reproducible by a process such as blueprinting. These shall be properly numbered or lettered to accompany the text. Scales shall not be reduced to a size which will render reproductions difficult to read. Descriptions and plans of items furnished by the Government shall be obtained from the Bureau concerned by the contractor and included in the final compilation."

NOTE. - Changes marked with an asterisk (*) were previously authorized, and are repeated hereon for convenience.

*Par. S1-1-i. (continued)

Subpar. 4: Change to read as follows:

"4. All copies of the record shall be delivered to the Supervisor of Shipbuilding prior to the delivery of the vessel. The records shall be grouped into separate volumes for distribution on the following described basis:

"Record of Electrical Auxiliaries with Performance Data

"VOLUME I - Description.

"Section I - Electrical power generation, and distribution - generators, switchboards, instruments, etc. - General information, descriptive matter and nameplate data.

"Section II - Electrical power applications - vital military auxiliaries - General information, nameplate data, and comments.

"Section III - Electrical power appliances - non-military auxiliaries - General information and nameplate data.

"NOTE 1 - This shall include all of the required information and illustrative matter.

"NOTE 2 - This volume may cover a group of vessels when the matter is common to all of the vessels of a group.

"VOLUME II - Record of Performance Data.

"Section I - Electrical power generation and distribution - generators, switchboards, instruments, etc. - Shipboard electrical test requirements, data and comments.

"Section II - Electrical power applications - vital military auxiliaries - Shipboard electrical and mechanical test requirements, data and comments.

"NOTE 3 - This shall include blueprint copies of all the required shipboard test records of the electrical equipment, electrical installation, and of the electrically-driven auxiliaries, including both electrical and mechanical data for such auxiliaries.

"NOTE 4 - This volume applies to only one vessel."

Change Note 5 of the table "DISTRIBUTION OF BOUND COPIES" to read as follows:

"NOTE 5 - The original reports and copies thereof shall be bound in a cover in the same manner."

Par. S1-1-k. Type B and D drawings - list of plans.

Subpar. 5(c)(9)(b): Add the following:

"This plan shall also include the relative location of the echo ranging projector, if installed, together with an outline of the skin of the ship showing other projections, if any, forward of the rod meter."

*Subpar. 5(e)(3):

Fourth line, change "S1-1-k-5(a)(2)" to "S1-1-k-5(a) and S1-1-k-5(b)".

Sixth line, delete "in one of the following ways" and substitute "as follows".

Subpar. (b), delete.

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